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## Digital Image Running Injury Prevention Program

Hundreds of thousands of soldiers who run as a part of their unit or individual physical training regimen incur injuries, often due to wearing the wrong type of shoe for their running gait. The Running Shoe Consult System was initiated to decrease and prevent running related injuries by educating active duty personnel in the proper selection of running shoes based on biomechanics, bodyweight and training.

Operation of the Digital Image Running Injury Prevention Program is broken down into three segments: an initial interview, running gait analysis and running report. During the interview, participants register with the Running Shoe Consult System's web site and complete an on-line worksheet prior to their appointment. This worksheet is used to collect information on past injuries and details of the runner's training regimen, such as the frequency, duration, speed and distance of running, strength training and agility/flexibility training sessions. This data, as well as information gained at the actual visit from shoe wear patterns such as; height of the arch and the shape of the foot is entered into the Running Shoe Consult System's web site database. The actual running gait analysis involves making two digital recordings of the runner's gait on a treadmill; first barefoot and then in running shoes. Both recordings are analyzed to reach a diagnosis of running gait and proper shoe recommendation. Finally, the information and the diagnosis are collated into a report for the patient, which details the information gained about that person's running style and includes a list of running shoes best suited to that style.

Running gait analysis has been utilized in military health clinics across the country to encourage safe training and injury prevention by providing proper equipment to soldiers. Digital Videotaped Gait-Analysis (DVGA) is the primary technique for running gait analysis.

The ability to access these systems through telemedicine technology will provide a convenient, reliable and cost-effective method of extending the benefits of DVGA to service members and dependants around the world serving mission readiness.

The Tele-Shoe project is the joint effort of the **Walter Reed Army Medical Center's Department of Telemedicine**, the Army's **Telemedicine and Advanced Technology Research Center** and the **DiLorenzo TRICARE Health Clinic** located in the Pentagon.

### Points of Contact:

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